PELVIC INFLAMMATORY DISEASE (PID)

DEFINITION

Pelvic inflammatory disease is an infection of the female upper genital tract that involves any combination of the uterus, endometrium, ovaries, fallopian tubes, pelvic peritoneum and adjacent tissues. PID consists of ascending infection from the lower to upper genital tract.

RNs must consult or refer to a physician or NP to confirm diagnosis, treatment, and management.

POTENTIAL CAUSES

Most cases of PID can be categorized as sexually transmitted or endogenous and are associated with more than one organism.

Bacterial:
- *Neisseria gonorrhoeae*
- *Chlamydia trachomatis*
- *Trichomonas vaginalis*
- *Mycoplasma genitalium*
- *Mycoplasma hominis*
- *Ureaplasma urealyticum*
- bacterial vaginosis (BV)

PREDISPOSING RISK FACTORS

- sexual contact in which exchange of body fluid may occur
- history of STI
- multiple sexual partners
- upper female genital tract instrumentation:
  - dilatation & curettage (D&C)
  - recent intrauterine device (IUD) insertion
  - therapeutic abortion (T/A)
TYPICAL FINDINGS

Sexual Health History
- unprotected sexual contact with at least one partner
- recent IUD insertion or upper genital tract instrumentation

PHYSICAL ASSESSMENT FINDINGS

Cardinal Signs
- lower abdominal pain – usually bilateral
- abnormal bimanual pelvic exam that includes:
  - adenexal tenderness
  - fundal tenderness
  - cervical motion tenderness

Additional Signs & Symptoms
- fever >38°C
- dyspareunia
- abnormal vaginal bleeding or spotting
- abnormal vaginal discharge
- urinary frequency
- pelvic pain
- nausea or vomiting
- low back pain

Differential Diagnosis:
It is important to rule out other potential causes of lower abdominal pain including ectopic pregnancy, ovarian cysts, and gastrointestinal causes including appendicitis.
**DIAGNOSTIC TESTS:**

- cervical swab for NAAT (GC/CT)
- cervical swab for GC culture & sensitivity
- urine pregnancy test
- vaginal swabs
  - vaginal slide smear for trichomonas, yeast, and bacterial vaginosis
  - swab for KOH whiff test
  - vaginal pH
- bimanual exam for tenderness

**CLINICAL EVALUATION**

Clients who present with suspected PID as defined by pelvic tenderness and lower abdominal pain during the bimanual exam require referral to physician/NP to confirm the diagnosis prior to receiving treatment.

**MANAGEMENT AND INTERVENTIONS**

**Goals of Treatment:**

- commence rapid treatment to preserve fertility
- treat infection
- alleviate symptoms
- prevent further complications
- prevent spread of infection

**NOTE:** If an IUD is present, the device should NOT BE REMOVED until after antibiotic therapy has been initiated and at least 2 doses of antibiotics have been taken.
Criteria for Potential Hospitalization:
The following criteria may indicate the need for hospitalization or parenteral therapy:

- surgical emergencies such as appendicitis or ectopic pregnancy that cannot be excluded
- client is pregnant
- client cannot tolerate oral treatments
- client is under the age of 19
- client has severe abdominal pain
- client has abdominal guarding, rigidity, or rebound tenderness
- client has severe nausea, vomiting, or a fever >38.5°C
- client has underlying chronic illnesses such as diabetes, HIV or active Hepatitis infection
- concerns with the client’s ability to complete oral antibiotic therapy that may require parenteral treatment

TREATMENT OF CHOICE - USE ONLY IN CONSULT WITH PHYSICIAN OR NP

First Choice – PID Treatment without concurrent BV

Cefixime 800mg po in a single dose AND doxycycline 100 mg PO BID for 10 days

If BV is clinically diagnosed in the presence of PID then treatment for BV is added to the cefixime and doxycycline regime:

First Choice – PID Treatment with concurrent BV

Cefixime 800mg po in a single dose AND doxycycline 100 mg po bid for 10 days AND metronidazole 500 mg po bid for 10 days

Note:

1. Treatment for PID covers possibility of infection by chlamydia and gonorrhea;
2. It is important for clients to abstain from sexual contact for 10 days after starting treatment until all partners have completed treatment;
3. Do not use cefixime if allergic to cephalosporins or penicillin.
4. Do not use doxycycline if allergic to tetracycline
ALTERNATE TREATMENT - USE ONLY IN CONSULT WITH PHYSICIAN OR NP

Second Choice - PID Treatment without concurrent BV
Cefixime 800mg po in a single dose AND Azithromycin 1 gm po in a single dose

If BV is clinically diagnosed in the presence of PID then treatment for BV is added to the cefixime and azithromycin regime:

Second Choice - PID Treatment with concurrent BV
Cefixime 800mg po in a single dose AND Azithromycin 1 gm po in a single dose AND metronidazole 500 mg po bid for 10 days

NOTE: Clients who receive Azithromycin as alternate treatment may require repeat treatment (Azithromycin 1 gm po in a single dose) at the follow-up visit. This decision is made in consultation with the physician/NP.

TREATMENT OF CONTACT(S) TO PID
Treat and offer screening to all sexual contacts within the past 60 days. See treatment of contacts DST for treatment regime.

PREGNANT OR BREASTFEEDING WOMEN
Refer all pregnant or breastfeeding women to a physician or NP.

PARTNER COUNSELLING AND REFERRAL
Counsel clients to notify sexual contacts within the previous 60 days that they require testing and treatment to cover uncomplicated chlamydia and gonorrhea.

Commence formal follow-up and partner notification processes if any reportable infections are diagnosed from the laboratory submitted specimens.

MONITORING AND FOLLOW-UP
Clients treated for PID should return to clinic for repeat assessment (bimanual exam) to ensure pelvic tenderness is resolving 2–3 days after the onset of treatment and again 4–7 days after treatment is completed.
POTENTIAL COMPLICATIONS

- Fitz-Hugh-Curtis syndrome
- tubo-ovarian abcess
- ectopic pregnancy
- chronic pelvic pain
- tubal factor infertility
- recurrent PID

CLIENT EDUCATION /DISCHARGE INFORMATION

Counsel client:

- to return for follow up assessment for pelvic tenderness in 48 to 72 hours after first visit and 4 to 7 days after treatment is finished
- regarding the importance of revisiting health care provider if symptoms worsen or persist
- regarding the appropriate use of medications (dosage, side effects, and need for re-treatment if dosage not completed)
- to avoid sexual contact with current partners until they and partners have completed screening and treatment
- to inform last sexual contact and all sexual contacts within the last 60 days that they require testing and treatment
- regarding harm reduction measures (condom use)
- regarding the complications from untreated PID
- regarding the risk of co infection risk for HIV when another STI is present
- the asymptomatic nature of STI and HIV

CONSULTATION OR REFERRAL

- Refer/consult for all clients who present clinically with suspected PID to physician/NP
- Refer to physician/NP for clients who are experiencing persistent and/or worsening symptoms after treatment has been initiated
**DOCUMENTATION**

- PID is not reportable
- institute reporting and partner notification processes if lab reportable infections are confirmed from diagnostic tests
- Document as per agency guidelines

**REFERENCES**


